

REMARKS

Favorable reconsideration is respectfully requested in view of the previous amendments and following remarks.

The specification is amended to adapt the Examiner's helpful and appreciated suggestion. Withdrawal of the objection to the specification is therefore respectfully requested.

Claims 1 and 5 are amended to ensure that appropriate antecedent basis exists for all recitations. Withdrawal of the rejection of Claims 1-6 under 35 U.S.C. § 112, second paragraph, is therefore respectfully requested.

Before turning to the prior art rejections, a general discussion of the subject matter disclosed here is provided. As illustrated in Fig. 3, a packaging and filling apparatus includes a cutting device 32 having cutting blade 33 which cuts a lateral seal band between preformed bodies 49 to separate the preformed bodies 49 from each other, and a resistance measuring means which measures a cutting resistance of the cutting blade 33 during this operation. As illustrated in Fig. 1, a profile of this measured cutting resistance is obtained for each instance that a lateral seal band is cut by the cutting blade 33. A blade monitoring means performs a comparison involving a pressure difference (dP) between a maximum resistance pressure (P_{max}) a constant resistance pressure (P_s) following the maximum resistance pressure (P_s). This pressure difference (dP) is compared to a predetermined pressure difference reference value indicating a need for the cutting blade 33 to be replaced, and the cutting blade 33 is replaced as needed based on this comparison.

Turning now to the claims, Claim 5 is rejected as being anticipated by Harding.

Claim 5 is amended to incorporate aspects previously recited in Claim 6, and now recites a packaging material device comprising, *inter alia*, a blade monitoring means for monitoring the condition of a cutting blade based upon a measurement value, wherein the blade monitoring means monitors the condition of the cutting blade based upon a comparison of a pressure difference between a maximum resistance pressure obtained from a profile of the measurement value and a constant resistance pressure following the maximum resistance pressure with a predetermined pressure difference reference value.

In rejecting Claim 6, the Official Action states regarding Harding that "the controller (652) monitors the measured shear force from the shear force sensor (654h) and compares the measured shear force with a predetermined parameter threshold". However, assuming for the sake of discussion that this statement is accurate, Harding still does not meet the recited subject matter at issue. Specifically, Harding's apparatus does not determine a difference between a maximum measured cutting resistance and a constant measured cutting resistance following the maximum cutting resistance, and then compare such a difference to a reference value. In the event the Examiner continues to believe the disclosure in Harding has relevance to the packaging machine cutting device recited in Claim 5, the Examiner is respectfully requested to issue a new Non-Final Official Action which points out where Harding discloses this aspect of the claimed blade monitoring means.

Accordingly, Claim 5 is allowable, and withdrawal of the rejection of claim 5 as being anticipated by Harding is respectfully requested.

Claim 1, the only other previously presented independent claim, is rejected as being unpatentable over Kume in view of Harding

As amended, Claim 1 recites a packaging and filling apparatus comprising, *inter alia*, a blade monitoring means for monitoring the condition of a cutting blade based upon a measurement value, wherein the blade monitoring means monitors the condition of the cutting blade based upon a comparison, of a pressure difference between a maximum resistance pressure obtained from a profile of the measurement value and a constant resistance pressure following the maximum resistance pressure, with a predetermined pressure difference reference value.

Consistent with the above discussion, Harding does not disclose the recited blade monitoring means. Furthermore, Kume does not cure this deficiency of Harding.

Accordingly, Claim 1 is allowable, and withdrawal of the rejection of Claim 1 as being unpatentable over Kume in view of Harding is respectfully requested.

New Claim 7 is believed to be allowable over the prior art of record for reciting a method of operating a packaging and filling apparatus comprising, *inter alia*, cutting a tube of packaging material at an intermediate region of lateral seals with a cutting blade to separate preformed bodies from each other and form individual fluid-containing containers, measuring a cutting resistance that the cutting blade receives from the packaging material, and replacing the cutting blade based on the measured cutting resistance, in combination with the other recited elements. New Claim 8 is also allowable at least in view of its dependence from Claim 7.

Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful

in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: July 7, 2008

By: Peter T. DeVore
Matthew L. Schneider
Registration No. 32814

Peter T. DeVore
Registration No. 60361

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620